

ABSTRACT OF THE DISCLOSURE

Disclosed is a catalyst for olefin polymerization comprising [I] a solid titanium catalyst component [S] comprising titanium, magnesium, halogen and an electron donor (b), which is obtained by bringing a solid adduct consisting of a magnesium compound and an electron donor (a) into contact with an electron donor (b) and a liquid titanium compound by at least one method selected from (A) a method of contacting the materials in a suspended state in the coexistence of an inert hydrocarbon solvent and (B) a method of contacting the materials plural times in divided portions and [II] an organometallic compound catalyst component [M] containing a metal selected from the groups I to III in the periodic table.